Complete Summary

TITLE

Hospital-based inpatient psychiatric services: the percentage of patients discharged from a hospital-based inpatient psychiatric setting on two or more antipsychotic medications with appropriate justification.

SOURCE(S)

Specifications manual for Joint Commission National Quality Core Measures [Version 2010A2]. Oakbrook Terrace (IL): The Joint Commission; 2010 Jan. 335 p.

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the Measure Validity page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of patients discharged from a hospital-based inpatient psychiatric setting on two or more antipsychotic medications with appropriate justification.

RATIONALE

Research studies have found that 4% to 35% of outpatients and 30% to 50% of inpatients treated with an antipsychotic medication concurrently received 2 or more antipsychotics. One study reported 4.6% of patients concurrently received 3 or more antipsychotics. These findings are seen across diverse sectors: state mental health authorities, the Veterans Health System and Medicaid-financed care. Antipsychotic polypharmacy can lead to greater side effects, often without improving clinical outcomes. As a result, a range of stakeholders have called for

efforts to reduce unnecessary use of multiple antipsychotics. Practice guidelines recommend the use of a second antipsychotic only after multiple trials of a single antipsychotic have proven inadequate. Randomized controlled trials (RCTs) provide some evidence to support augmentation with a second antipsychotic in *treatment resistant* patients. Most of these studies were limited to augmentation of clozapine with another second-generation antipsychotic. Among patients *without* a documented history of previous treatment failures of antipsychotic monotherapy, multiple RCTs and other controlled trials failed to show a benefit of antipsychotic polypharmacy over monotherapy. Clinical circumstances, such as shorter inpatient stays, may require hospitals to discharge a patient on multiple antipsychotics with an aftercare plan to transition to monotherapy. In such cases, effective communication between the inpatient and aftercare clinician is an essential element of care.

PRIMARY CLINICAL COMPONENT

Psychiatric inpatient; discharged on 2 or more antipsychotic medications; appropriate justification

DENOMINATOR DESCRIPTION

Psychiatric inpatients who are discharged on two or more routinely scheduled antipsychotic medications (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

NUMERATOR DESCRIPTION

Psychiatric inpatients who are discharged on two or more routinely scheduled antipsychotic medications with appropriate justification

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- Practice guideline for the treatment of patients with schizophrenia. Second edition.

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Use of this measure to improve performance

EVIDENCE SUPPORTING NEED FOR THE MEASURE

Ananth J, Parameswaran S, Gunatilake S. Antipsychotic polypharmacy. Curr Pharm Des2004;10(18):2231-8. [91 references] PubMed

Centorrino F, Goren JL, Hennen J, Salvatore P, Kelleher JP, Baldessarini RJ. Multiple versus single antipsychotic agents for hospitalized psychiatric patients: case-control study of risks versus benefits. Am J Psychiatry2004 Apr;161(4):700-6. PubMed

Covell NH, Jackson CT, Evans AC, Essock SM. Antipsychotic prescribing practices in Connecticut's public mental health system: rates of changing medications and prescribing styles. Schizophr Bull2002;28(1):17-29. PubMed

Ganguly R, Kotzan JA, Miller LS, Kennedy K, Martin BC. Prevalence, trends, and factors associated with antipsychotic polypharmacy among Medicaid-eligible schizophrenia patients, 1998-2000. J Clin Psychiatry2004 Oct;65(10):1377-88. PubMed

Gilmer TP, Dolder CR, Folsom DP, Mastin W, Jeste DV. Antipsychotic polypharmacy trends among Medicaid beneficiaries with schizophrenia in San Diego County, 1999-2004. Psychiatr Serv2007 Jul;58(7):1007-10. PubMed

Jaffe AB, Levine J. Antipsychotic medication coprescribing in a large state hospital system. Pharmacoepidemiol Drug Saf2003 Jan-Feb;12(1):41-8. PubMed

Kreyenbuhl J, Valenstein M, McCarthy JF, Ganoczy D, Blow FC. Long-term combination antipsychotic treatment in VA patients with schizophrenia. Schizophr Res2006 May;84(1):90-9. PubMed

Lehman AF, Lieberman JA, Dixon LB, McGlashan TH, Miller AL, Perkins DO, Kreyenbuhl J, American Psychiatric Association, Steering Committee on Practice Guidelines. Practice guideline for the treatment of patients with schizophrenia, second edition. Am J Psychiatry2004 Feb;161(2 Suppl):1-56. [642 references] PubMed

National Association of State Mental Health Program Directors (NASMHPD). Technical report on psychiatric polypharmacy. Alexandria (VA): NASMHPD; 2001.

Potkin SG, Thyrum PT, Alva G, Bera R, Yeh C, Arvanitis LA. The safety and pharmacokinetics of quetiapine when coadministered with haloperidol, risperidone, or thioridazine. J Clin Psychopharmacol2002 Apr;22(2):121-30. PubMed

Shim JC, Shin JG, Kelly DL, Jung DU, Seo YS, Liu KH, Shon JH, Conley RR. Adjunctive treatment with a dopamine partial agonist, aripiprazole, for antipsychotic-induced hyperprolactinemia: a placebo-controlled trial. Am J Psychiatry2007 Sep;164(9):1404-10. PubMed

Stahl SM, Grady MM. A critical review of atypical antipsychotic utilization: comparing monotherapy with polypharmacy and augmentation. Curr Med Chem2004 Feb;11(3):313-27. [173 references] PubMed

Tranulis C, Skalli L, Lalonde P, Nicole L, Stip E. Benefits and risks of antipsychotic polypharmacy: an evidence-based review of the literature. Drug Saf2008;31(1):7-20. [79 references] PubMed

University Healthsystem Consortium. Mental health performance measures field brief. Oakbrook (IL): University Healthsystem Consortium; 2006.

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Hospitals

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

TARGET POPULATION AGE

All patients age one year and older

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Children

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Mental disorders are common in the United States and internationally. An estimated 26.2 percent of Americans ages 18 and older — about one in four adults — suffer from a diagnosable mental disorder in a given year. When applied to the 2004 U.S. Census residential population estimate for ages 18 and older, this figure translates to 57.7 million people.

See also the "Rationale" field.

EVIDENCE FOR INCIDENCE/PREVALENCE

Kessler RC, Chiu WT, Demler O, Merikangas KR, Walters EE. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry2005 Jun;62(6):617-27. PubMed

U.S. Census Bureau population estimates by demographic characteristics. Table 2: annual estimates of the population by selected age groups and sex for the United States: April 1, 2000 to July 1, 2004 (NC-EST2004-02). Population Division, U.S. Census Bureau; 2005 Jun 9.

ASSOCIATION WITH VULNERABLE POPULATIONS

Unlike most disabling physical diseases, mental illness begins very early in life. Half of all lifetime cases begin by age 14; three quarters have begun by age 24. Thus, mental disorders are really the chronic diseases of the young. For example, anxiety disorders often begin in late childhood, mood disorders in late adolescence, and substance abuse in the early 20's. Unlike heart disease or most cancers, young people with mental disorders suffer disability when they are in the prime of life, when they would normally be the most productive.

EVIDENCE FOR ASSOCIATION WITH VULNERABLE POPULATIONS

National Institute of Mental Health. Mental illness exacts heavy toll, beginning in youth. National Institutes of Health (NIH); 2005.

BURDEN OF ILLNESS

Even though mental disorders are widespread in the population, the main burden of illness is concentrated in a much smaller proportion — about 6 percent, or 1 in 17 — who suffer from a serious mental illness. In addition, mental disorders are the leading cause of disability in the U.S. and Canada for ages 15 to 44. Many people suffer from more than one mental disorder at a given time. Nearly half (45 percent) of those with any mental disorder meet criteria for 2 or more disorders, with severity strongly related to comorbidity.

EVIDENCE FOR BURDEN OF ILLNESS

Kessler RC, Chiu WT, Demler O, Merikangas KR, Walters EE. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry2005 Jun;62(6):617-27. PubMed

National Institute of Mental Disorders (NIMD). The numbers count: mental disorders in America. [internet]. Bethesda (MD): National Institute of Mental Health (NIMH); 2008 Apr[accessed 2008 Apr 29].

World Health Organization. The World Health report 2004: changing history, annex table 3: burden of disease in DALYs by cause, sex, and mortality stratum in WHO regions, estimates for 2002. Geneva: WHO; 2004.

UTILIZATION

Unspecified

COSTS

Major mental disorders cost the nation at least $193 billion annually in lost earnings alone, according to a new study funded by the National Institutes of Health's National Institute of Mental Health (NIMH). The study was published online ahead of print May 7, 2008 in the *American Journal of Psychiatry*.

"Lost earning potential, costs associated with treating coexisting conditions, Social Security payments, homelessness and incarceration are just some of the indirect costs associated with mental illnesses that have been difficult to quantify," said NIMH Director Thomas R. Insel, M.D. "This study shows us that just one source of these indirect costs is staggeringly high."

Direct costs associated with mental disorders like medication, clinic visits, and hospitalization are relatively easy to quantify, but they reveal only a small portion of the economic burden these illnesses place on society. Indirect costs like lost earnings likely account for enormous expenses, but they are very difficult to define and estimate.

EVIDENCE FOR COSTS

Kessler RC, Heeringa S, Lakoma MD, Petukhova M, Rupp AE, Schoenbaum M, Wang PS, Zaslavsky AM. Individual and societal effects of mental disorders on earnings in the United States: results from the national comorbidity survey replication. Am J Psychiatry2008 Jun;165(6):703-11. PubMed

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness
Safety

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Inpatients discharged with a psychiatric diagnosis

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions
Psychiatric inpatients who are discharged on two or more routinely scheduled antipsychotic medications

Exclusions

- Patients who expired
- Patients with an unplanned departure resulting in discharge due to elopement
- Patients with an unplanned departure resulting in discharge due to failing to return from leave
- Patients with a length of stay less than or equal to 3 days

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Institutionalization
Therapeutic Intervention

DENOMINATOR TIME WINDOW

Time window brackets index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions
Psychiatric inpatients who are discharged on two or more routinely scheduled antipsychotic medications with appropriate justification

Exclusions
None

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Institutionalization

DATA SOURCE

Administrative data
Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Analysis by subgroup (stratification on patient factors, geographic factors, etc.)

DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

Allowance for patient age is made via stratification of results:

- Overall rate
- Children age 1-12 years
- Adolescent age 13-17 years
- Adult age 18-64 years
- Older adult age greater than or equal to 65 years

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Alpha testing was conducted during May and June 2006 at approximately 40 volunteer test sites to assess feasibility and data collection effort. A total of five measures were recommended by the Technical Advisory Panel (TAP) to comprise the final test set addressing the domains of Assessment, Patient Safety and Continuity/Transitions of Care.

The Specification Manual for National Hospital Inpatient Quality Measures Hospital-Based Inpatient Psychiatric Services Test Set was finalized by September 2006. A call for pilot test sites was placed in late 2006 to recruit volunteer hospitals to collect and report on the test measures. A total of 196 hospitals volunteered to participate in the Hospital Based Inpatient Psychiatric Services (HBIPS) pilot test. Hospitals opting to participate in the pilot test were defined as project pilot test sites and were allowed to utilize the test HBIPS measures to satisfy their ORYX measurement reporting requirement. Data collection for the test set began with January 1, 2007 discharges and continued throughout December 31, 2007.

Twenty-one listed performance measurement systems agreed to support the HBIPS pilot test. Joint Commission staff defined and developed a database structure for electronic receipt of measure data and a verification process was implemented to assure that measures were embedded into the measurement system´s technical infrastructures and into their data collection tools in accord with Joint Commission specifications. Joint Commission staff also verified data collection tools and provided education regarding the test performance measure set to performance measurement systems vendors, which provided education and ongoing support to their confirmed test sites.

During the first quarter of the pilot test, a subset of 39 hospitals was randomly selected to collect and transmit monthly hospital clinical data (HCD) to help assess data quality and data reliability. The data quality study continued with data collection and transmission for the 12 months of 2007. Feedback on data quality was provided to each performance measurement systems vendor submitting HCD.

The final phase of testing consisted of site visits to a sample of participating pilot hospitals to assess the reliability of data abstracted and reported by those hospitals. A data collection tool was developed to facilitate the reabstraction of selected medical records and assessment of the reliability of the data elements.

Reliability test site visits were conducted by Joint Commission staff at a subset of 18 randomly-selected pilot hospitals. Selection of the test sites was based on multiple characteristics; including hospital demographics, populations served, bed size and type of facility.

All of the HBIPS measures have undergone a rigorous process of public comment, alpha testing and broad-scale pilot testing and are recognized by the field as important indicators of hospital-based inpatient psychiatric care. As a final step, the HBIPS measure set has been submitted to the National Quality Forum (NQF) for consideration and 4 measures have received endorsement.

EVIDENCE FOR RELIABILITY/VALIDITY TESTING

Domzalski K. (Joint Commission). Personal communication. 2010 Feb 12. 3 p.

Identifying Information

ORIGINAL TITLE

Patients discharged on multiple antipsychotic medications with appropriate justification.

MEASURE COLLECTION

National Quality Core Measures

MEASURE SET NAME

Hospital-Based Inpatient Psychiatric Services

DEVELOPER

Joint Commission, The

FUNDING SOURCE(S)

All external funding for measure development has been received and used in full compliance with The Joint Commission's Corporate Sponsorship policies, which are available upon written request to The Joint Commission.

COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

The composition of the group that developed the measure is available at: http://www.jointcommission.org/NR/rdonlyres/656011F6-F6E7-4BC8-A82D-E436EDB2F01C/0/TAPMembersListforWeb6108.pdf.

FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

Expert panel members have made full disclosure of relevant financial and conflict of interest information in accordance with the Joint Commission's Conflict of

Interest policies, copies of which are available upon written request to The Joint Commission.

ENDORSER

National Quality Forum

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2008 Jun

REVISION DATE

2010 Jan

MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: Joint Commission. Specifications manual for national hospital inpatient quality measures: hospital-based inpatient psychiatric services core measure set. Version 2.1a. Oakbrook Terrace (IL): Joint Commission; 2009 Feb. various p.

SOURCE(S)

Specifications manual for Joint Commission National Quality Core Measures [Version 2010A2]. Oakbrook Terrace (IL): The Joint Commission; 2010 Jan. 335 p.

MEASURE AVAILABILITY

The individual measure, "Patients Discharged on Multiple Antipsychotic Medications with Appropriate Justification," is published in "Specifications Manual for Joint Commission National Quality Core Measures [Version 2010A2]." This document is available from the The Joint Commission Web site.

NQMC STATUS

This NQMC summary was completed by The Joint Commission on May 30, 2008 and reviewed accordingly by ECRI Institute on July 7, 2008. This NQMC summary was updated by ECRI Institute on February 24, 2009. The information was verified by the measure developer on April 27, 2009. This NQMC summary was completed by The Joint Commission on August 27, 2009 and reviewed accordingly by ECRI Institute on February 5, 2010.

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